QUARTERLY PROGRESS REPORT
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

TO: Darryl Luce, USEPA
Drew Hoffman, NHDES
Ed Conroy, M&E

FROM: Work Settling Defendants (WSD)
prepared by Mike Webster, Christene Binger, GeoInsight, Inc.

DATE: January 10, 2009

RE: Quarterly Progress Report

REPORTING PERIOD

X_May to December – Due January 10th (First Progress Report since CD-SOW lodged)
__January to March – Due April 10th
__April to June – Due July 10th
__July to September – Due October 10th
__October to December – Due January 10th

I. PROGRESS REPORT OBJECTIVES (Per Paragraph 32 of the Consent Decree)

In accordance with Paragraph 32 of the Amended Consent Decree, the objectives for the Quarterly Progress Reports associated with the Dover Municipal Landfill Superfund Site include:

(a) describe the actions which have been taken toward achieving compliance with the Amended Consent Decree during the previous quarter;

(b) include a summary of results of sampling and tests and other data received or generated by Work Settling Defendants or their contractors or agents in the previous quarter;

(c) identify all work plans, plans and other deliverables required by the Amended Consent Decree that were completed and submitted during the previous quarter;

(d) describe all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next four months and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts and Pert charts;

(e) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays;

(f) include any modifications to the work plans or other schedules that Work Settling Defendants have proposed to USEPA or that have been approved by USEPA; and

(g) describe activities undertaken in support of the Community Relations Plan during the previous quarter and those to be undertaken in the next four months.

For these Quarterly Progress Reports, representatives of the United States Environmental Protection Agency (USEPA) and New Hampshire Department of Environmental Services (NHDES) will be collectively referred to as the "Agency(ies)." Pre-Design Investigation, Remedial Design, and Remedial Action activities are being completed at the Dover Municipal Landfill Superfund Site by GeoInsight, Inc. (GeoInsight) and XDD, Inc. (XDD) at the request of the Executive Committee of the Work Settling Defendants (the "Group"). Dean Peschel, Environmental Projects Manager for the City of Dover, is the project coordinator on behalf of the Group.

As requested by Darryl Luce, USEPA Remedial Project Manager, the Quarterly Progress Report was developed to provide an overall summary of completed and ongoing activities, and to the extent practicable, relies upon the use of graphic, tabular, or pictorial tools (as opposed to written text) to convey summary/status information. We expect that the format and content of the Quarterly Progress Reports may change over time as additional methods are identified for providing the requested information.

II. OVERVIEW OF LANDFILL ACTIVITIES

This progress report focuses upon activities completed from May 2008 (when the Amended Consent Decree and Scope of Work (SOW) were finalized) to the end of December 2008. Primary activities performed during this reporting period include activities associated with:

- Southern Plume Management of Migration (MOM) Pre-Design Investigation, Remedial Design, and Remedial Action;
- Northwest Landfill Hot Spot Remedial Design and Remedial Action; and
- Source Control Focused Feasibility Study (SCFFS).

Secondary activities performed during this reporting period were associated with:

- Ecotoxicity Pre-Design Investigation;
- Soil Vapor Intrusion Pre-Design Investigation; and
- Environmental Monitoring Program.

This report also includes a summary of the Southern Plume MOM ground water extraction system pilot study and seasonal operation (i.e., June through November) as an attachment.

A master schedule of anticipated activities for 2009 was developed to provide the Agencies and the Group with a consolidated, site-wide summary of activities and likely implementation schedule. The master schedule is included as an attachment.

III. STATUS OF SOURCE CONTROL ACTIVITIES

A. Air Sparge Trench Pre-Design Investigation

Phase I field activities were completed in the summer of 2007. Results of the Phase I activities were presented in the February 22, 2008 SCFFS. USEPA provided comments on the SCFFS in a letter dated November 3, 2008. The Group is currently preparing responses to USEPA comments that will be submitted to the Agencies during the first quarter of 2009.

B. Source Control Focused Feasibility Study

The Draft SCFFS report was submitted to the Agencies on February 22, 2008 and USEPA provided an approval with conditions on November 3, 2008. A Response to Conditions cover letter and revised text, tables, and figures are currently being prepared by the Group and will be submitted to the Agencies during the first quarter of 2009.

C. Northwest Landfill Hotspot Remedial Design and Remedial Action

- See attached summary.

IV. STATUS OF MANAGEMENT OF MIGRATION ACTIVITIES

A. Southern Plume – Ground Water Extraction

- See attached summary.

B. Eastern Plume – Monitored Natural Attenuation (MNA)

Activities associated with the Eastern Plume MNA MOM activities were not performed during this reporting period. The Eastern Plume MNA Work Plan was submitted on November 7, 2006. Consistent with discussions with the Agencies, the Eastern Plume MNA Work Plan and associated activities are anticipated to be initiated after the Source Control remedy is constructed and operational.

V. STATUS OF OTHER RESPONSE ACTIONS

A. Soil Vapor Intrusion – Indoor Air Pre-Design Investigation

- See attached summary.

B. Ecotoxicity and Human Health Assessment of the Cocheco River

- See attached summary.

C. Environmental Monitoring Plan

- See attached summary.

VI. COMMUNITY RELATIONS PLAN

The following two meetings were completed during 2008:

- Dean Peschel and members of the Group participated in a meeting on January 8, 2008 to discuss the status of PDI sampling activities at the Landfill with representatives of the Technical Assistance Grant (TAG) Group and City of Portsmouth; and

- Dean Peschel and members of the Group participated in a public meeting on July 17, 2008 in Dover to discuss the CD/SOW that was issued by USEPA.

A public meeting is scheduled for Tuesday, February 10, 2009. The purpose of the public meeting is to provide a summary of activities that were completed in 2008 and to discuss activities that are expected to occur in 2009.

VII. ATTACHMENTS

The following information is attached to this Progress Report:

- Master Schedule of Anticipated Activities - Year 2009;

- Summary and Status of Activities for:
  Northwest Landfill Hotspot Remedial Design and Remedial Action
  Southern Plume – Management of Migration - Ground Water Extraction
  Soil Vapor Intrusion – Indoor Air Pre-Design Investigation
  Ecotoxicity and Human Health Assessment of the Cocheco River
  Environmental Monitoring Plan; and

- Periodic Remedy Performance Report, Southern Plume Management of Migration (MOM).

SUMMARY AND STATUS OF ACTIVITIES - Q1 - JANUARY 10, 2009
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

1. Summary of Activities

- Southern Plume Remedial Action Pilot Season was completed, July to November 2008;
- Five performance monitoring wells were installed in the Southern Plume Study Area between November 18 to 20, 2008;
- Remedial system shut-down and winterizing activities were completed at the Landfill on November 25, 2008; and
- See attached Southern Plume Periodic Remedy Performance Report for a summary of activities performed during the period June to November 2008.

2. Deliverables and Correspondence

The following deliverables were submitted or received by the agencies:

- 100 Percent Remedial Design and Operation and Monitoring Manual for the Southern Plume Management of Migration were submitted to the Agencies on August 21, 2008;
- USEPA conditionally approved the 100 Percent Design submittal on September 11, 2008 and requested that the report be revised to include responses to Agency conditions; and
- A revised version of the 100 Percent Remedial Design and Operation and Monitoring Manual was submitted on September 26, 2008.

3. Schedule for Next Quarter

During the next quarter the following activities are anticipated to be performed:

- renewing the discharge permit from the City of Dover POTW;
- continued evaluation of system performance field data; and
- procurement of system equipment for the 2009 field season.

4. Status of Activities

Reporting Schedule - Information regarding the Southern Plume MOM will be included in two of the four annual Quarterly Progress Reports as specified in September 26, 2008 100 Percent Design Report, consistent with the following reporting schedule:

-April to July activities will be included in the October Report
-August to November activities will be included in January Report

Remedy Design:	Complete.
Remedy Construction:	100 percent complete.
Remedy Implementation:	First operating season completed. Second system operating season to be initiated in the second quarter of 2009.

5. Modifications

None.

SUMMARY AND STATUS OF ACTIVITIES - Q1 - JANUARY 10, 2009
SOIL VAPOR INTRUSION - INDOOR AIR PRE-DESIGN INVESTIGATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

1. Summary of Activities

Field sampling and tests were not performed during the previous quarter.

2. Deliverables and Correspondence

On December 11, 2008, GeoInsight transmitted the February 2008 Quarterly Ground Water Monitoring Event and Soil Vapor Intrusion Investigation Summary Report (the "December Summary Report") to the Agencies.

3. Schedule for Next Quarter

Additional field activities are not proposed for the next quarter.

4. Status of Activities

In the December Summary Report, the Group indicated that SVI Pre-Design requirements had been met, and proposed that focused monitoring of shallow ground water along Tolend and Glen Hill Roads downgradient of the Landfill be included in subsequent Environmental Monitoring Program (EMP) events. The Agencies have yet to respond to the SVI Summary Report.

5. Modifications

Three of the SVI sentinel wells (SC-25, SC-26, and SC-27) that are located near the intersection of Tolend and Glen Hill Roads were included in the second 2008 EMP event that was completed in November 2008.

SUMMARY AND STATUS OF ACTIVITIES – Q1 – JANUARY 10, 2009
ECOTOXICITY AND HUMAN HEALTH ASSESSMENT OF THE COCHECO RIVER
PRE-DESIGN INVESTIGATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

1. Summary of Activities

Field sampling and tests were not performed during the previous quarter.

On July 23, 2008, GeoInsight and representatives of the Group met with the agencies to discuss the need for additional sediment sampling and toxicity testing associated with he Cocheco River.

On August 14, 2008, GeoInsight and Dean Peschel met with EnviroSystems, Inc. (ESI), to discuss ecotoxicity and general chemistry test results presented in the Draft Focused Ecotoxicity and Human Health Assessment Report dated August 16, 2006.

2. Deliverables and Correspondence

The following deliverables were submitted or received by the agencies:

- Letter from Dean Peschel to USEPA dated October 8, 2008, describing the results of the August 2008 meeting with ESI;

- ESI prepared a letter addressed to GeoInsight dated September 30, 2008 regarding the Cocheco River sediment sample compositing and homogenization as they related to the collection of sub-samples for chemical analyses by ESI and USEPA's contractor, Metcalf & Eddy, Inc.; the letter was forwarded to USEPA;

- GeoInsight transmitted a Project Technical Memorandum dated November 24, 2008 to USEPA, providing a focused summary of the methods proposed for collecting a second set of composite sediment samples from pre-established sampling locations within the Cocheco River in the vicinity of the Dover Municipal Landfill Superfund Site; and

- Letter from Darryl Luce to Dean Peschel dated December 19, 2008, providing Agency comments to the November 24, 2008 Project Technical Memorandum.

3. Schedule for Next Quarter

Additional field activities are not proposed for the next quarter. Implementation of additional sediment sampling will likely be performed in the second or third quarter of 2009.

4. Status of Activities

Reporting Schedule – The Group will prepare a revised Project Technical Memorandum to address comments provided in the December 19, 2008 letter and submit to the Agencies by January 19, 2009.

5. Modifications

None.

SUMMARY AND STATUS OF ACTIVITIES – Q1 – JANUARY 10, 2009
ENVIRONMENTAL MONITORING PLAN
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

1. Summary of Activities

The second monitoring event was performed from November 6 to November 20, 2008, and the site-wide gauging event was performed on November 21, 2008.

2. Deliverables and Correspondence

The following deliverables were submitted or received by the agencies:

- The EMP monitoring event performed in June 2008 was summarized in the report titled First Monitoring Event (Summer) Year 2008, dated October 15, 2008.

3. Schedule for Next Quarter

Field activities are not proposed for the next quarter.

4. Status of Activities

Reporting Schedule – The results of the Second (Winter) Year 2008 EMP event will be summarized during the first quarter 2009 and submitted to the Agencies.

5. Modifications

None.

MASTER SCHEDULE OF ANTICIPATED ACTIVITIES - YEAR 2009
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
TOLEND ROAD
DOVER, NEW HAMPSHIRE

	2009												2010
	Q1			Q2			Q3			Q4			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
SOURCE CONTROL													
Source Control Focused Feasibility Study													
Response to Agency Comments													
Source Control Remedial Design													
Work Plan for Remedial Design													
30 Percent Remedial Design (120 days from Work Plan approval)													
75 Percent Remedial Design (90 days from approval of 30 percent design)													
100 Percent Remedial Design (60 days from approval of 75 percent design)													
Northwest Landfill Hotspot Remedial Action													
Site Preparation Activities and Equipment Testing													
Baseline Sampling													
System Start Up													
Seasonal Operation													
Performance Monitoring													
System Shutdown													
Data submittals (with Quarterly Progress Reports)													
MANAGEMENT OF MIGRATION													
Southern Plume - Ground Water Extraction													
Pre-start up system equipment procurement and configuration modifications													
Baseline Sampling													
System Start Up													
Seasonal Operation													
Performance Monitoring													
System Shutdown													
Data submittals (with Quarterly Progress Reports)													
OTHER RESPONSE ACTIONS													
Soil Vapor Intrusion - Indoor Air Pre-Design Investigation													
Focused Monitoring during EMP Events													
Ecotoxicity and Human Health Assessment of the Cocheco River													
Revised Technical Memorandum													
Field Sampling Activities													
Environmental Monitoring Plan													
Summary Report: Second Monitoring Event (Winter) Year 2008													
First Monitoring Event (Summer) 2009													
Second Monitoring Event (Winter) 2009													
Summary Report: First Monitoring Event (Summer) Year 2009													
Summary Report: Second Monitoring Event (Winter) Year 2009													
EMP Program Proposed Modifications Summary													

PERIODIC REMEDY PERFORMANCE REPORT

SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

DATE: January 10, 2009
TO: Darryl Luce, USEPA; Andrew Hoffman, NHDES
FROM: Mike Webster and Christene Binger
RE: Periodic Remedy Performance Report – Implementation of 100 Percent Remedial Design, Southern Plume Management of Migration

REPORTING PERIOD

April to June _____ (Due October 10th)
June to November __XX_____ (Due January 10th)

A. INTRODUCTION

This Periodic Remedy Performance Report (PRP) provides information regarding the performance of the Southern Plume ground water extraction (GWE) system since the Amended Consent Decree (ACD) and Scope of Work (SOW) were finalized in May 2008. The GWE system was designed and installed as part of the Southern Plume Management of Migration (MOM) Remedial Action (RA) for the Dover Municipal Landfill Superfund Site.

B. ACTIVITIES

i. Pumping Periods

- The GWE system operated continuously during this reporting period (June 20, 2008 through November 25, 2008). Ground water extraction wells MW-206I and SB-4D were operating during the following periods:

PERIOD:	OPERATING WELL(S):
June 20 to July 15, 2008	SB-4D
July 15 to August 5, 2008	MW-206I
August 5 to November 11, 2008	MW-206I and SB-4D
November 11 to November 25, 2008	SB-4D

- During this reporting period, wells MW-206I and SB-4D extracted ground water at an average rate of 0.65 and 0.95 gallons per minute (gpm), respectively. The extraction rate for the GWE system ranged from 1.00 to 1.75 gpm when both extraction wells were operating. Information regarding the GWE system pumping periods are summarized in Table 1 (modified from Table 1 of the 100 Percent Southern Plume Remedial Design).

ii. GWE System Operation and Maintenance

- GWE system operation and maintenance (O&M) activities were typically performed on a weekly basis during periods of system operation. GWE system operational history is recorded in Table 2 (modified from Table 2 of the Southern Plume MOM Operation and Maintenance Plan [SPRA O&M Plan]). Maintenance of GWE system components was generally conducted according to manufacturer's specifications and is summarized in Table 3 (modified from Appendix H of the SPRA O&M Plan).

- The GWE system operated continuously during this reporting period; however, brief periods (i.e., less than seven consecutive days) of unscheduled pump downtime did occur. During these pump downtimes the GWE system was operational, but one or more of the pumps was not pumping water to the fractionation (frac) tank. Pump downtimes during this reporting period were caused by several conditions, including; iron and sediment fouling in the pump chamber, iron and sediment fouling in effluent water lines, condensate accumulating in air lines, and ice forming in effluent lines at the end of the season (i.e., during a period of freezing ambient temperatures). Pump downtime was identified during weekly O&M visits, and repairs were completed at the conclusion of each site visit.

iii. Discharges

Since the installation of the GWE system in November 2007, approximately 270,000 gallons of ground water were extracted from the pumping wells and discharged to the City of Dover municipal sewer system for treatment at the POTW. During this reporting period, approximately 213,000 gallons of ground water were extracted by the GWE system. GWE system effluent volume estimates are recorded in Tables 2 and 3.

Extracted Ground Water Summary:

Total Volume to Date:	270,000 gallons
Total Volume During Reporting Period:	213,000 gallons

iv. Monitoring

- In November 2008, five additional remedy performance monitoring wells that were proposed in the 100 Percent Remedial Design and SPRA O&M Plan were installed in the Southern Plume Study Area. The wells were positioned to monitor hydraulic and ground water quality conditions near the estimated capture zone of extraction well MW-206I. On December 2, 2008, the new wells were surveyed for elevation and location, and pressure transducers were installed in each well. Well details are summarized in Table 7.

- Quarterly downloading of continuous hydraulic monitoring data (i.e., transducer data) was conducted during this reporting period on September 2 and December 2, 2008. Data was recorded at 30-minute intervals in 8 transducers located in the Southern

Plume Study Area. Transducer data recorded between June 17 and December 2, 2008 is presented in Figure 1.

- On December 2, 2008, transducers were repositioned in the Study Area to focus the continuous hydraulic monitoring activities in the vicinity of extraction well MW-206I, including the areas where the new performance monitoring wells were installed. Transducers were removed from monitoring wells SC-12UUI, SC-11UUI, B-4WT and installed into wells near extraction well MW-206I. In addition, several new transducers were installed in wells near MW-206I (including the new wells installed in November 2008). Currently, continuous hydraulic influence monitoring data are recorded in the following monitoring wells: MW-206I, PT-1, SB-B2(I), B-10WT, MW-200I, SB-D3I, MW-204I, MW-206S, MW-207I, MW-208S, MW-208I, and MW-209I.

- A comprehensive hydraulic monitoring event was conducted on November 20, 2008. Wells and surface water gauging stations that were included in the comprehensive hydraulic monitoring event are summarized in Table 5 of the SPRA O&M Plan. Extraction wells were typically gauged during each operation and maintenance site visit. A baseline hydraulic monitoring event will be conducted in March/April 2009, prior to system start up.

C. MONITORING RESULTS

i. Influent Ground Water Quality Monitoring

Water samples were collected from sample ports located along the influent water lines. The influent water samples were typically collected on a weekly basis and submitted to Resource Laboratories, Inc. of Portsmouth, New Hampshire and analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260 (including tetrahydrofuran [THF]). Concentrations of THF and benzene (the primary constituents of concern) detected in effluent samples obtained from extraction wells MW-206I and SB-4D indicate a slightly decreasing trend between June and November 2008. Analytical results are summarized in Tables 4A and 4B (modified from Tables 4A and 4B in the 100 Percent Southern Plume Remedial Design). Influent concentrations of THF and benzene versus time are illustrated in the attached Figures 2 and 3, respectively.

ii. POTW Compliance Monitoring

Water samples were collected from the frac tank on a monthly basis. These samples were submitted for laboratory analyses of POTW local limit analytes and screening criteria. The results of these analyses were provided to the Dover POTW monthly. Dover POTW requirements (i.e., local limits) and screening criteria are summarized in Table 1 of the SPRA O&M Plan. Analytical data associated with the frac tank waster samples are summarized in Table 5 (modified from Table 3 of the SPRA O&M Plan).

ii. Mass Removal Estimates

Water samples were collected weekly from the active extraction well(s) and submitted for VOC analyses (including THF). These analytical data were used to monitor constituent concentration trends over time and to estimate VOC mass removal to date. Calculations of mass removal were based upon the analytical data associated with weekly VOC monitoring and the approximate volumes of ground water extracted during the corresponding pumping period.

THF is the VOC that was detected at the highest concentrations in the water samples. The concentrations of THF in the water samples ranged from 1,100 to 4,200 micrograms per liter (ug/L). Other VOCs that were consistently detected in the water samples included benzene, toluene, ethylbeneze, xylenes, chloroethane, and chlorobenzene (Tables 4A and 4B). These VOCs were detected in the water samples at concentrations that were typically 2 or more orders of magnitude below the THF concentrations. Consequently, THF represents the majority of VOC mass that has been removed by the GWE system.

Consistent with evaluations completed during the Pilot Study, THF and benzene are the primary VOC COCs within the Southern Plume (i.e., the VOCs that have been detected in ground water at concentrations above applicable Interim Cleanup Levels). Therefore, preliminary calculations of mass removal associated with the GWE system focused upon these two VOCs. These preliminary calculations indicate that approximately 5.03 pounds of THF/benzene have been removed to date by operation of the GWE system. THF represents approximately 98.8 percent of the mass removed.

Mass removal calculations associated with THF and benzene are summarized in Table 6 (modified from Table 5 of the 100 Percent Southern Plume Remedial Design). These mass removal calculations will be updated as the GWE system is operated during 2009.

iv. Performance Monitoring

Focused ground water monitoring events (performance monitoring) were not conducted during the 2008 field season. Performance monitoring will be initiated during the 2009 field season. Baseline water quality conditions will be established by collecting ground water samples in March/April 2009, prior to system start up. Ground water monitoring will be continued with quarterly focused monitoring events in July, October, and December 2009.

D. REMEDY PROGRESS

A three-day Pilot Test was conducted following the installation of the system in late 2007. The purpose of the Pilot Test was to evaluate the system for basic operation and performance (including sustainable pumping rates). Following the conclusion of the Pilot Test, the GWE system was shut down for the season. The 2008 pumping season was initiated on April 16th. In general, the system operated continuously until the system was shut down on November 25, 2008 because of freezing weather conditions. Approximately 270,000 gallons of ground water was extracted from the two wells and transported to the municipal sewer

system since the GWE system was installed in November 2007. During the 2007/2008 season, approximately 5 pounds of VOCs were removed by the GWE system.

Starting with the 2009 field season, monitoring data obtained while operating the Southern Plume GWE system will be used to monitor and evaluate remedial system performance. Evaluation of remedy performance will include criteria described in the 100 Percent Southern Plume Remedial Design.

E. SYSTEM MODIFICATIONS

Based upon observations of GWE system performance during the 2008 field season, system modifications were proposed in the 100 Percent Southern Plume Remedial Design. These modifications will be conducted prior to initiating the 2009 field season. Additional information regarding system modifications will be included in the subsequent performance report.

SUMMARY OF ATTACHMENTS

TABLES

TABLE 1	Summary of Pumping Periods – 2007/2008
TABLE 2	Summary of GWE System Operational History
TABLE 3	Maintenance Tracking Log
TABLE 4A	Summary of Laboratory Analytical Data – Influent VOC Monitoring – MW-206I
TABLE 4B	Summary of Laboratory Analytical Data – Influent VOC Monitoring – SB-4D
TABLE 5	Summary of Laboratory Analytical Data – Frac Tank
TABLE 6	Mass Removal Calculation
TABLE 7	Summary of New Monitoring Wells – November 2008

FIGURES

FIGURE 1	Transducer Data (May 17, 2008 – December 2, 2008)
FIGURE 2	Concentration Versus Time – MW-206I
FIGURE 3	Concentration Versus Time – SB-4D

TABLE 1
SUMMARY OF PUMPING PERIODS - 2007/2008
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

Pumping Period	Average System Flow Rate (gpm)	Wells Operating	Total Volume Extracted To Date (gallons)
Initial Pilot Test			
November 29 to December 1, 2007	1.3	MW-206I SB-4D	7,115
Pilot Test Period			
April 16 to April 19, 2008	2.2	MW-206I SB-4D	15,441
May 1 to May 5, 2008	2.4	MW-206I SB-4D	30,605
May 12 to June 10, 2008	0.7	MW-206I	56,342
June 13 to June 17, 2008	0.7	MW-206I	60,590
Current Reporting Period			
June 20 to July 15, 2008	1.3	SB-4D	104,782
July 15 to August 5, 2008	0.8	MW-206I	130,030
August 5 to November 11, 2008	1.4	MW-206I SB-4D	256,588
Novemver 11 to November 25, 2008	1.4	SB-4D	273,588

TABLE 2
SUMMARY OF GWE SYSTEM OPERATIONAL HISTORY
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

DATE	ACTIVITIES/NOTES	SAMPLES COLLECTED	SYSTEM OPERATING ON ARRIVAL	SYSTEM OPERATING ON DEPARTURE	AIR LINE PRESSURE SB-4D (PSI)	AIR LINE PRESSURE MW-206I (PSI)	APPROXIMATE FLOW RATE SB-4D (GAL/MIN)	APPROXIMATE FLOW RATE MW-206I (GAL/MIN)	TOTAL SYSTEM FLOW RATE (GAL/MIN)	WELL(S) PUMPING	APPROXIMATE VOLUME PUMPED TO DATE
INITIAL PILOT TEST											
11/29/07	CAB, KEZ on-site to start up system	NO	NO	YES	60 80 80	60 90 120	0.88 0.87 0.87	0.27 NR NR	1.15 0.87 0.87	SB-4D/MW-206(I) SB-4D/MW-206(I) SB-4D/MW-206(I)	---
11/30/07	KEZ, RSE on-site to check system and work on MW-206I	NO	YES	YES	80	120	1.00	1.25	2.25	SB-4D/MW-206(I)	2,549
12/01/07	BPP on-site for system inspection	NO	YES	YES	80	120	NR	NR	NR	SB-4D/MW-206(I)	5,628
12/02/07	BPP on-site for system inspection - system on but not pumping	NO	YES	YES	81	120	0.00 (Frozen)	0.00 (Frozen)	0.00	---	7,115
12/03/07	KEZ and WMC on-site to shut down system for winter and collect sample from frac tank	FRAC TANK	YES	NO	NR	NR	0.00 (Frozen)	0.00 (Frozen)	0.00	---	7,115
12/06/07	KEZ on-site to check system and frac tank	NO	NO	NO	NR	NR	---	---	---	---	7,115
PILOT TEST PERIOD											
04/16/08	CAB, KEZ on-site for seasonal pump install and system start up, gauge wells	NO	NO	YES	100	100	1.25	1.00	2.25	SB-4D/MW-206(I)	7,434
04/17/08	KDT on-site for system O&M	NO	YES	YES	100	100	1.30	0.80	2.10	SB-4D/MW-206(I)	9,812
04/18/08	WMC, KEZ on-site for system O&M	FRAC TANK	YES	YES	100	100	1.40	0.80	2.20	SB-4D/MW-206(I)	13,232
04/19/08	BPP on-site for system O&M, frac tank full, shut down system	NO	NO	NO	---	---	---	---	---	NONE	15,441
04/29/08	KEZ, BPP, JRF on-site for water transfer	NO	NO	NO	---	---	---	---	---	NONE	15,441
04/30/08	JRF, BPP on-site for water transfer and make repairs/upgrades to system	NO	NO	NO	---	---	---	---	---	NONE	15,441
05/01/08	BPP on-site to restart system and O&M	NO	NO	YES	120	100	1.50	1.00	2.50	SB-4D/MW-206(I)	15,441
05/05/08	KEZ, WMC on-site for system O&M, shut down system, install four new transducers	FRAC TANK	YES	NO	100	110	1.50	0.75	2.25	SB-4D/MW-206(I)	30,605
05/09/08	BPP on-site for system shut down and water transfer	NO	NO	NO	---	---	---	---	---	NONE	30,605
05/12/08	KEZ on-site to restart system, system O&M, and water transfer	INFLUENT	NO	YES	---	110	---	0.88	0.88	MW-206(I)	30,605
05/20/08	BPP on-site for system O&M and water transfer	INFLUENT	YES	YES	---	110	---	0.75	0.75	MW-206(I)	36,020
05/27/08	BPP on-site for system O&M and water transfer	INFLUENT	YES	YES	---	117	---	0.50	0.50	MW-206(I)	42,626
06/04/08	KEZ on-site for system O&M and water transfer	INFLUENT	YES	YES	---	115	---	0.65	0.65	MW-206(I)	49,592
06/10/08	BPP on-site for system O&M, gauging, and system shut down	INFLUENT/FRAC TANK	YES	NO	---	110	---	0.75	0.75	MW-206(I)	56,342
06/13/08	BPP on-site for system O&M and restart system	NO	NO	YES	---	120	---	0.75	0.75	MW-206(I)	56,342
06/17/08	KEZ on-site for system O&M, system shut down, and download transducers	INFLUENT	YES	NO	---	110	---	0.70	0.70	MW-206(I)	60,590
CURRENT REPORTING PERIOD											
06/20/08	BPP on-site for system O&M and restart system	NO	NO	YES	100	---	1.25	---	1.25	SB-4D	64,816
06/25/08	BPP on-site for system O&M and water transfer	INFLUENT	YES	YES	98	---	1.25	---	1.25	SB-4D	73,816
07/01/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	SB-4D	82,816
07/02/08	KEZ on-site for system O&M and downloading transducers	INFLUENT	YES	YES	98	---	1.25	---	1.25	SB-4D	82,816
07/03/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	SB-4D	88,816
07/08/08	BPP on-site for system O&M, water transfer, and well gauging	INFLUENT	YES	YES	98	---	1.25	---	1.25	SB-4D	95,782
07/15/08	BPP on-site for system O&M and water transfer	INFLUENT/FRAC TANK	YES	YES	98	---	1.00	---	1.00	SB-4D	104,782
07/22/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	MW-206(I)	113,782
07/23/08	BPP on-site for system O&M	INFLUENT	YES	YES	---	106	---	0.50	0.50	MW-206(I)	118,030
07/29/08	BPP on-site for system O&M and water transfer, took photos of system	INFLUENT	YES	YES	---	116	---	0.75	0.75	MW-206(I)	124,030
08/05/08	BPP on-site for system O&M, water transfer, and compressor maintenance *	INFLUENT	YES	YES	---	116	---	0.75	0.75	MW-206(I)	130,030
08/13/08	BPP on-site for system O&M, water transfer, gauging, and compressor maintenance *	INFLUENT/FRAC TANK	YES	YES	100	117	0.75	0.50	1.25	SB-4D/MW-206(I)	136,030
08/19/08	BPP on-site for system O&M and water transfer	INFLUENT	YES	YES	100	119	0.25	0.50	0.75	SB-4D/MW-206(I)	145,030
08/26/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	SB-4D/MW-206(I)	154,030
09/02/08	KEZ on-site for system O&M, water transfer, and download transducers	INFLUENT	NO	YES	100	115	0.90	0.70	1.60	SB-4D/MW-206(I)	162,781
09/05/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	SB-4D/MW-206(I)	171,781
09/09/08	BPP on-site for system O&M, water transfer, and clean/repair pump in MW-206I	INFLUENT	YES	YES	98	117	0.75	0.75	1.50	SB-4D/MW-206(I)	175,881
09/16/08	BPP on-site for system O&M, water transfer, and gauging	INFLUENT/FRAC TANK	YES	YES	98	117	0.75	0.50	1.25	SB-4D/MW-206(I)	184,801
09/23/08	BPP on-site for system O&M, water transfer, compressor maintenance, and clean/repair pumps *	INFLUENT	NO	YES	98	118	1.00	0.75	1.75	SB-4D/MW-206(I)	190,801
09/30/08	BPP on-site for system O&M, water transfer, and clean/repair pump in SB-4D *	INFLUENT	YES	YES	98	117	1.00	0.50	1.50	SB-4D/MW-206(I)	198,101
10/07/08	BPP on-site for system O&M and water transfer *	INFLUENT/FRAC TANK	YES	YES	102	117	0.75	0.67	1.42	SB-4D/MW-206(I)	205,088
10/14/08	BPP on-site for system O&M, water transfer, clean/repairs to both pumps *	INFLUENT	NO	YES	102	117	1.00	0.75	1.75	SB-4D/MW-206(I)	213,088
10/21/08	BPP on-site for system O&M, water transfer, gauging, and clean/repairs to both pumps *	INFLUENT	YES	YES	102	117	0.75	0.50	1.25	SB-4D/MW-206(I)	222,088
10/22/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	SB-4D/MW-206(I)	229,588
10/27/08	BPP on-site for system O&M and clean/repair pump in MW-206I *	INFLUENT	YES	YES	102	117	0.75	0.67	1.42	SB-4D/MW-206(I)	229,588
10/28/08	CHES on-site for water transfer	NO	---	---	---	---	---	---	---	SB-4D/MW-206(I)	238,588
11/04/08	BPP on-site for system O&M, water transfer, and clean/repair pump in MW-206I *	INFLUENT	YES	YES	102	117	1.00	0.75	1.75	SB-4D/MW-206(I)	247,588
11/11/08	BPP on-site for system O&M and clean/repair pump in SB-4D *	INFLUENT/FRAC TANK	YES	YES	102	117	1.00	0.75	1.75	SB-4D/MW-206(I)	256,588
11/18/08	BPP on-site for system O&M, water transfer, and clean/repair pump in MW-206I *	INFLUENT	YES	YES	102	117	1.00	0.00	1.00	SB-4D	265,588
11/25/08	BPP on-site for system O&M, water transfer, and seasonal system shutdown *	NO	YES	NO	102	---	---	---	---	NONE	273,588

NOTES:
1. --- = not recorded or not applicable.
2. PSI = pounds per square inch.
3. GAL/MIN = gallons per minute.
4. O&M = Operation and maintenance; indicates that system monitoring activities were performed.
5. Project personnel; CAB = Christine Binger, KEZ = Kristin Zeman, RSE = Renee Egerton, BPP = Brian Poulin, KDT = Kevin Trainer, WMC = Wes Court, and JRF = Josh Funk.
6. CHES = Clean Harbors Environmental Services, Inc; contractor providing water transfer services.
7. * = See Table 3 (Maintenance Log) for additional information.
8. Approximate flow rate was measured manually prior to frac tank discharge.

TABLE 3
MAINTENANCE TRACKING LOG
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL
DOVER, NEW HAMPSHIRE

DATE	FIELD STAFF	MAINTENANCE PERFORMED	NOTES	SYSTEM AT ARRIVAL (ON/OFF)	SYSTEM AT DEPARTURE (ON/OFF)
08/05/08	BPP	Changed compressor oil, checked belt tension, pump filters, and air filter.	---	ON	ON
08/12/08	BPP	Greased compressor.	---	ON	ON
09/23/08	BPP	Changed compressor oil, greased compressor motor, pulled and cleaned pumps. Pumps operating at departure.	Pumps not operating at arrival.	ON	ON
09/30/08	BPP	Pulled and inspected pump in SB-4D; pump operating at departure.	Pump in SB-4D not operating at arrival. Increased pressure to SB-4D from 98 to 103 psi.	ON	ON
10/07/08	BPP	Pulled, inspected, and cleaned pump in SB-4D. Pump in SB-4D operating at departure.	Pump in SB-4D not operating at arrival.	ON	ON
10/14/08	BPP	Cut influent lines in fractionation tank, portion of influent lines were iron/sediment clogged, drained air filters. Pumps operating at departure.	Pumps not operating at arrival.	ON	ON
10/21/08	BPP	Drained condensation from SB-4D and MW206I air lines. Pumps operating at departure.	Pump in MW-206I not operating at arrival.	ON	ON
10/27/08	BPP	Drained condensation from MW206I air line. Pumps operating at departure.	Pump in MW-206I not operating at arrival.	ON	ON
11/04/08	BPP	Replaced section of MW-206I influent line; influent line was clogged with iron/sediment. Drained condensation from MW206I air line. Pumps operating at departure.	Pump in MW-206I not operating at arrival.	ON	ON
11/11/08	BPP	Replaced section of SB-4D influent line; influent line was clogged with iron/sediment. Also pulled and cleaned pump in SB-4D. Pump in SB-4D operating at departure.	Pump in SB-4D not operating at arrival.	ON	ON
11/18/08	BPP	Greased compressor motor. MW-206I not pumping at departure, likely due to freezing conditions.	Pump in MW-206I not operating at arrival.	ON	ON
11/25/08	BPP	End of season shutdown. Changed oil, fitting grease, drained lines, removed and cleaned pumps for winter storage.	---	ON	OFF

TABLE 4A
SUMMARY OF LABORATORY ANALYTICAL DATA
INFLUENT VOC MONITORING - MW-206I
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

Constituent	POTW Screening Levels	12-May-08	20-May-08	27-May-08	4-Jun-08	10-Jun-08	17-Jun-08	23-Jul-08	29-Jul-08	5-Aug-08	13-Aug-08	19-Aug-08	2-Sep-08	9-Sep-08	16-Sep-08	23-Sep-08	30-Sep-08	7-Oct-08	14-Oct-08	21-Oct-08	27-Oct-08	4-Nov-08	11-Nov-08
benzene	N/A	**29**	**37**	**19**	**20**	**22**	**56**	**22**	**21**	**19**	**23**	**28**	**27**	**26**	**23**	**23**	**23**	**45**	**26**	**23**	**25**	**25**	**19**
ethylbenzene	**1,590**	**23**	**33**	**21**	**21**	**23**	**53**	**23**	**24**	**21**	**26**	**26**	**28**	**28**	**26**	**27**	**27**	**41**	**25**	**25**	**26**	**25**	**19**
toluene	**1,350**	**4**	<10	**2**	**3**	<10	<10	**3**	**3**	**2**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	<10	**3**	**2**	**3**	**3**	**2**
xylenes (total)	N/A	**63**	**77**	**45**	**47**	**50**	**122**	**52**	**53**	**48**	**59**	**67**	**72**	**72**	**61**	**67**	**65**	**108**	**67**	**64**	**68**	**67**	**50**
PCE	**530**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
TCE	**710**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
cis-1,2-DCE	**280***	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
vinyl chloride	**3**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
acetone	**1,176,000**	<50	<250	<50	<50	<250	<250	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<250	<50	<50	<50	<50	<50
tetrahydrofuran	N/A	**2,600**	**2,700**	**1,500**	**3,600**	**1,700**	**4,200**	**3,100**	**2,400**	**2,100**	**1,700**	**1,900**	**2,200**	**2,000**	**1,900**	**1,800**	**1,200**	**1,500**	**2,900**	**2,500**	**2,200**	**2,100**	**2,200**
2-butanone (MEK)	**249,000**	<10	<50	<10	<10	<50	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10
MIBK	N/A	<10	<50	<10	<10	<50	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10
methylene chloride	**4,150**	<5	<25	<5	<5	<25	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5
1,1,1-TCA	**1,550****	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
1,1-DCA	**4,580**	**3**	<10	**2**	<2	<10	<10	<2	**2**	<2	<2	**2**	**2**	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
1,1-DCE	N/A	<1	<5	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,2-DCA	N/A	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
bromomethane	**2**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
chloromethane	**7**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
chloroform	**420**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
dibromochloromethane	N/A	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
bromoform	N/A	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
carbon disulfide	**60**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
styrene	N/A	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
chloroethane	N/A	**3**	<10	<2	<2	<10	<10	<2	<2	<2	<2	**2**	**2**	**2**	<2	<2	<2	<10	<2	<2	<2	<2	<2
chlorobenzene	**2,350**	**3**	<10	**3**	**3**	<10	<10	**3**	**3**	**2**	**3**	**3**	**4**	**3**	**3**	**3**	**3**	<10	**4**	**3**	**3**	**3**	**2**
1,2-dichloropropane	**3,650**	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
1,1,2-trichloroethane	N/A	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
cis-1,3-dichloropropene	**90*****	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
trans-1,3-dichloropropene	**90*****	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
1,1,2,2-tetrachloroethane	N/A	<2	<10	<2	<2	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2
2-hexanone	N/A	<10	<50	<10	<10	<50	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10

NOTES:
1. Laboratory analytical results are reported in micrograms per liter (ug/L).
2. DCE = Dichloroethene; DCA = Dichloroethane; MEK = Methyl Ethyl Ketone (2-butanone); MIBK = Methyl Isobutyl Ketone (4-methyl 2-pentanone); TCA = Trichloroethane; PCE = Tetrachloroethene; TCE = Trichloroethene.
3. N/A = Not Applicable.
4. Bold values exceed laboratory practical quantitation limits (PQLs).
5. "<" = Not detected above reported PQL.
6. * indicates Screening Level for trans-1,2-dichloroethylene.
7. ** indicates Screening Level for 1,1,1-trichloroethylene.
8. *** indicates Screening Level for total 1,3-dichloropropene.

TABLE 4B
SUMMARY OF LABORATORY ANALYTICAL DATA
INFLUENT VOC MONITORING - SB-4D
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

Constituent (ppb)	POTW Screening Levels	12-May-08	25-Jun-08	1-Jul-08	8-Jul-08	15-Jul-08	5-Aug-08	13-Aug-08	19-Aug-08	2-Sep-08	9-Sep-08	16-Sep-08	23-Sep-08	30-Sep-08	7-Oct-08	14-Oct-08	21-Oct-08	27-Oct-08	4-Nov-08	11-Nov-08	18-Nov-08
benzene	N/A	**35**	**34**	**31**	**35**	**31**	**36**	**32**	**31**	**31**	**30**	**30**	**32**	**30**	**37**	**34**	**29**	**29**	**29**	**19**	**25**
ethylbenzene	**1,590**	**30**	**22**	**25**	**29**	**25**	**28**	**25**	**19**	**17**	**3**	**8**	**12**	**14**	**11**	**14**	**14**	**19**	**23**	<2	**15**
toluene	**1,350**	**89**	**70**	**74**	**82**	**80**	**50**	**76**	**73**	**69**	**70**	**70**	**55**	**64**	**61**	**58**	**57**	**59**	**67**	**32**	**51**
xylenes (total)	N/A	**92**	**97**	**114**	**130**	**116**	**108**	**118**	**107**	**107**	**118**	**115**	**112**	**114**	**105**	**98**	**109**	**112**	**123**	**78**	**92**
PCE	**530**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
TCE	**710**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-DCE	**280***	**2**	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
vinyl chloride	**3**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
acetone	**1,176,000**	**56**	**52**	**66**	<250	**51**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
tetrahydrofuran	N/A	**3,100**	**1,900**	**1,900**	**1,700**	**1,300**	**1,800**	**2,000**	**1,200**	**1,400**	**1,500**	**1,700**	**1,400**	**3,100**	**2,200**	**1,700**	**1,100**	**1,700**	**1,500**	**1,300**	**1,500**
2-butanone (MEK)	**249,000**	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
MIBK	N/A	**15**	<10	<10	<50	<10	**2**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
methylene chloride	**4,150**	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-TCA	**1,550****	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-DCA	**4,580**	**2**	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1-DCE	N/A	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-DCA	N/A	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
bromomethane	**2**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloromethane	**7**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroform	**420**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
dibromochloromethane	N/A	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
bromoform	N/A	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
carbon disulfide	**60**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
styrene	N/A	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
chloroethane	N/A	**9**	**7**	**6**	<10	**6**	**9**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	<2	<2	**5**	**6**	**4**	**4**
chlorobenzene	**2,350**	<2	<2	**2**	<10	**2**	<2	**2**	**2**	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	<2	<2
1,2-dichloropropane	**3,650**	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2-trichloroethane	N/A	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,3-dichloropropene	**90*****	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
trans-1,3-dichloropropene	**90*****	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-tetrachloroethane	N/A	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-hexanone	N/A	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

NOTES:
1. Laboratory analytical results are reported in micrograms per liter(ug/L).
2. DCE = Dichloroethene; DCA = Dichloroethane; MEK = Methyl Ethyl Ketone (2-butanone); MIBK = Methyl Isobutyl Ketone (4-methyl 2-pentanone); TCA = Trichloroethane; PCE = Tetrachloroethene; TCE = Trichloroethene.
3. N/A = Not Applicable.
4. Bold values exceed laboratory practical quantitation limits (PQLs).
5. "<" = Not detected above reported PQL.
6. * indicates Screening Level for trans-1,2-dichloroethylene.
7. ** indicates Screening Level for 1,1,1-trichloroethylene.
8. *** indicates Screening Level for total 1,3-dichloropropene.

TABLE 5
SUMMARY OF LABORATORY ANALYTICAL DATA - FRAC TANK
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

		Combined Water SB-4D and MW-206I	Combined Water SB-4D and MW-206I	Combined Water MW-206I	Combined Water SB-4D	Combined Water SB-4D and MW-206I	Combined Water SB-4D and MW-206I	Combined Water SB-4D and MW-206I	Combined Water SB-4D and MW-206I
		FRAC TANK	FRAC TANK	FRAC TANK	FRAC TANK	FRAC TANK	FRAC TANK	FRAC TANK	FRAC TANK
Analyte/Parameter	**Local Limit**	**4/18/2008**	**5/5/2008**	**6/10/2008**	**7/15/2008**	**8/13/2008**	**9/16/2008**	**10/7/2008**	**11/11/2008**
Total Arsenic	0.4	**0.09**	**0.30**	**0.030**	**0.051**	**0.050**	**0.032**	**0.015**	**0.036**
Total Cadmium	0.02	<0.005	<0.005	**0.01**	<0.005	<0.005	<0.005	<0.005	<0.005
Total Chromium	4.03	<0.05	**0.05**	<0.50	<0.05	**0.34**	<0.05	<0.05	<0.05
Total Copper	3.46	<0.05	<0.05	<0.50	<0.05	<0.05	<0.05	<0.05	<0.05
Total Lead	0.806	<0.01	<0.01	**0.38**	<0.008	<0.008	<0.008	<0.008	<0.008
Mercury	0.004	<0.0009	<0.0009	---	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009
Total Nickel	1.07	<0.05	**0.12**	<0.50	<0.05	**0.89**	<0.05	<0.05	<0.05
Selenium	8.55	<0.05	<0.05	**0.06**	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	0.713	<0.007*	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Total Zinc	4.33	<0.05	**0.07**	**0.99**	<0.05	<0.05	<0.05	<0.05	<0.05
Cyanide	0.363	<0.02	<0.02	<0.02	---	<0.02	<0.02	<0.02	<0.02
Total Phenol	182	<0.05	**0.09**	**0.20**	**0.08**	**2.1**	<0.05	<0.05	**0.51**
Analyte/Parameter	**Screening Level**	**4/18/2008**	**5/5/2008**	**6/10/2008**	**7/15/2008**	**8/13/2008**	**9/16/2008**	**10/7/2008**	**11/11/2008**
1,1,1-Trichloroethylene	1.55	<0.01**	<0.01**	<0.01**	<0.002**	<0.002**	<0.002**	<0.002**	<0.002**
1,1-Dichloroethane	4.58	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
1,2,4-Trichlorobenzene	0.43	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
1,2-Dichlorobenzene	3.74	<0.01	<0.01	<0.01	<0.002	**0.002**	**0.003**	**0.003**	**0.002**
1,2-Dichloropropane	3.65	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
1,3-Dichloropropene (Total)	0.09	<0.02	<0.02	<0.02	<0.004	<0.004	<0.004	<0.004	<0.004
1,4-Dichlorobenzene	3.54	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
2-Butanone (MEK)	249	<0.05	<0.05	<0.05	<0.010	<0.010	<0.010	<0.010	<0.010
Acetone	1,176	<0.25	<0.25	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050
Acrylonitrile	1.24	---	---	---	---	---	---	---	---
Bromomethane	0.002	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide	0.06	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorobenzene	2.35	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Chloroform	0.42	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Chloromethane	0.007	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Dichlorodifluoromethane	0.04	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Ethylbenzene	1.59	**0.015**	**0.21**	**0.25**	**0.018**	**0.009**	**0.014**	**0.009**	**0.012**
Ethylene Dichloride	1.05	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Hexachloroethane	0.96	<0.002*	<0.2	<0.1	---	---	---	---	---
Hexachloro-1,3-Butadiene	0.0002	---	---	---	---	---	---	---	---
Methylene Chloride	4.15	<0.025	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005
Naphthalene	3.34	<0.025	**0.031**	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethylene	0.53	<0.01	**0.26**	**0.093**	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	1.35	**0.026**	<0.01	<0.01	**0.044**	**0.030**	**0.029**	**0.012**	**0.021**
trans-1,2-Dichloroethylene	0.28	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Trichloroethylene	0.71	<0.01	**0.036**	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Trichlorofluoromethane	1.22	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Vinyl Acetate	1.21	---	---	---	---	---	<0.010	<0.010	<0.010
Vinyl Chloride	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Formaldehyde	0.07	**0.069/0.084**[A]	**0.10/0.036**[A]	**1.5**[B]	**0.051/0.653**[C]	**0.590**[D]	**0.076**[D]	**0.13**[D]	**0.087**[D]
Heptachlor	0.003	---	---	---	---	---	---	---	---
Sulfate	150/1,500	---	---	---	---	---	---	---	---
Sulfide	1	<0.04	<0.04	**0.07**	---	---	<0.04	<0.04	<0.04
Sulfite	2.00	---	---	---	---	---	---	---	---
Oil and Grease	100	---	---	---	---	---	---	---	---
Ammonia-N	90	**58**	**160**	**28**	**70**	**63**	**72**	---	---
pH	<6.0 or >11.0	**6.46**	**6.45**	**6.28**	**6.38^**	**6.22^**	**6.23^**	**6.26**	**6.23**
Alkalinity (as CaCO3)	>75.0	**530**	**1,100**	**1,800**	**630**	**540**	---	---	---
Biological Oxygen Demand	791	**14**	**22**	**17**	**13**	**17**	**12**	**13**	**11**
Total Suspended Solids	847	**110**	**370**	**11,000**	**65**	**80**	**42**	**80**	**58**
ADDITIONAL ANALYSES (NON-PERMIT) REQUESTED BY POTW									
Analyte/Parameter		**4/18/2008**	**5/5/2008**	**6/10/2008**	**7/15/2008**	**8/13/2008**	**9/16/2008**	**10/7/2008**	**11/11/2008**
Antimony		**0.007**	**0.01**	**0.53**	<0.006	<0.006	<0.006	<0.006	<0.006
Beryllium		<0.004	<0.004	**0.01**	<0.004	<0.004	<0.004	<0.004	<0.004
Molybdenum		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Thallium		<0.004	<0.004	<0.004	**0.005**	<0.004	<0.002	<0.002	<0.002
Tetrahydrofuran		**3.0**	**1.8**	**1.8**	**1.3**	**1.7**	**1.5**	**2.3**	**2.1**
Flash Point (Closed Cup)		NonIgnitable	**>140**	**>140**	**>140**	**>140**	---	---	---

NOTES:
1. Laboratory analytical results are reported in milligrams per liter (mg/L).
2. Bold values exceed laboratory practical quantitation limits (PQLs).
3. Shaded value exceeds screening criteria.
4. "<" = Not detected above reported PQL.
5. --- = Constituent was not analyzed.
6. * indicates analyses performed for sample collected on December 3, 2007 when tank was half full.
7. ** data presented for 1,1,1-trichloroethane.
8. [A] data reported by two different laboratories (Katahdin/ChemServe).
9. [B] data reported by Alpha Analytical.
10. [C] data reported by two different laboratories (Katahdin/Alpha Analytical).
11. [D] data reported by ChemServe.
12. ^ = sample was analyzed beyond method holding time.
13. pH measured in standard pH units.
14. POTW = Dover's Publicly Owned Treatment Works.

TABLE 6
MASS REMOVAL CALCULATIONS
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

	Constituents						Constituent Weekly Totals	
Date	**Benzene (ug/L)**	**Tetrahydrofuran (ug/L)**	**Well Pumping**	**Approximate Pumping Rate (gal/min)**	**Gallons Pumped**	**Liters Pumped**	**Benzene (kg)**	**Tetrahydrofuran (kg)**
Pilot Test Period								
04/18/08	**22**	**3,000**	Frac Tank	NA	15,441	58,451	1.29E-03	1.75E-01
05/05/08	ND(10)*	**1,800**	Frac Tank	NA	15,164	57,402	2.87E-04	1.03E-01
05/12/08	**29**	**2,600**	MW-206I	0.88	5,415	20,498	5.94E-04	5.33E-02
05/20/08	**37**	**2,700**	MW-206I	0.75	6,606	25,006	9.25E-04	6.75E-02
05/27/08	**19**	**1,500**	MW-206I	0.50	6,966	26,369	5.01E-04	3.96E-02
06/04/08	**20**	**3,600**	MW-206I	0.65	6,750	25,552	5.11E-04	9.20E-02
6/10 & 6/17/2008	**39****	**2,950****	MW-206I	0.73	4,248	16,080	6.27E-04	4.74E-02
Current Reporting Period (6/17/2008 - 11/25/2008)								
Well ID	**Average Benzene concentration (ug/L)**	**Average Tetrahydrofuran Concentration (ug/L)**	**Well Pumping**	**Average Pumping Rate per Well (gal/min)**	**Gallons Pumped**	**Liters Pumped**	**Benzene (kg)**	**Tetrahydrofuran (kg)**
MW-206I	**25**	**2,106**	NA	0.64	86,827	328,677	8.22E-03	6.92E-01
SB-4D	**31**	**1,679**	NA	0.93	126,171	477,608	1.48E-02	8.02E-01
TOTAL TO DATE:					273,588	1,035,643	2.78E-02	2.07E+00
SUMMARY								
TOTAL ESTIMATED MASS REMOVED TO DATE:							**kg**	**lbs**
Benzene							**0.028**	**0.06**
Tetrahydrofuran							**2.073**	**4.57**

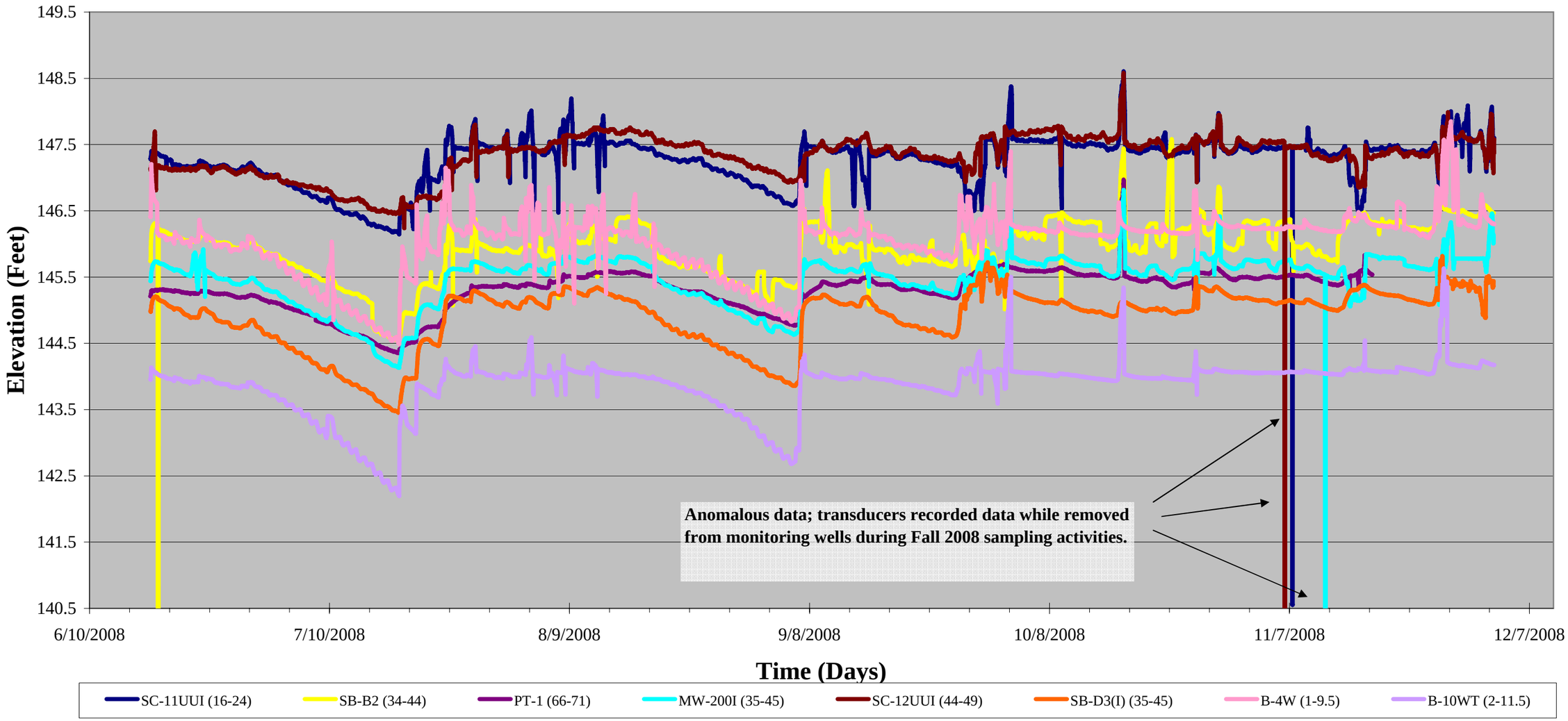
NOTES:
1. * = constituent not detected above detection limit; mass removal calculated using half of the detection limit.
2. ** = average concentrations calculated from two influent samples collected during pumping period.
3. Frac Tank = indicates water sample was collected from fractionation tank (i.e., water storage tank); SB-4D and MW-206I combined effluent.
4. NA = not applicable.
5. ug/L = micrograms per liter.
6. gal/min = gallons per minute.
7. kg = kilograms.
8. lbs = pounds.
9. "Gallons Pumped" estimated based upon volume monitoring of frac tank and/or recorded water transfer volume.

TABLE 7
SUMMARY OF NEW PERFORMANCE MONITORING WELLS
NOVEMBER 2008
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

Well ID	Approximate Location	Well Diameter (inches)	Target Unit	Screen Interval (feet BGS)	Rationale
MW-206(S)	Adjacent to pumping well MW-206(I)	2	US	3-13	Hydraulic Monitoring
MW-207(I)	25 feet west of pumping well MW-206(I)	2	UUI	35-45	Hydraulic Monitoring and VOC Trend Analysis
MW-208(S)	50 feet west of pumping well MW-206(I)	2	US	2-12	Hydraulic Monitoring
MW-208(I)		2	UUI	35-45	Hydraulic Monitoring and VOC Trend Analysis
MW-209(I)	150 feet west of pumping well MW-206(I)	4	UUI	35-45 (sump installed 45-50 BGS)	Hydraulic Monitoring and VOC Trend Analysis Potential Extraction Well

NOTES:
1. US = Upper Sand, UUI = Upper Upper Interbedded, LUI = Lower Upper Interbedded.
2. VOC = volatile organic compound.
3. BGS = below ground surface.

FIGURE 1
TRANSDUCER DATA
(JUNE 17, 2008 - DECEMBER 2, 2008)
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE



NOTE:
1. (XX-XX) = screened interval in feet below ground surface.

FIGURE 2
CONCENTRATION VERSUS TIME - MW-206I
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE

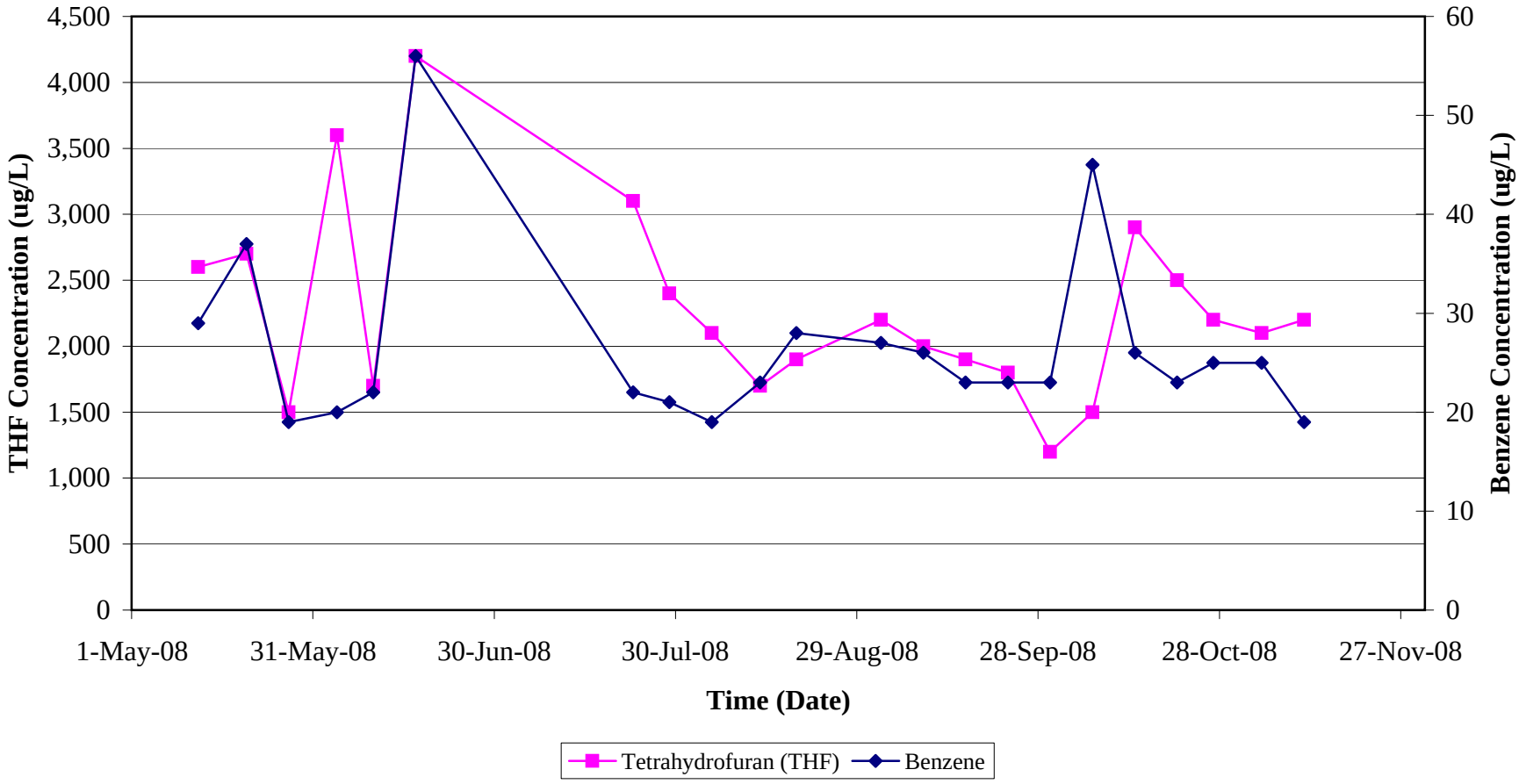


FIGURE 3
CONCENTRATION VERSUS TIME - SB-4D
SOUTHERN PLUME MANAGEMENT OF MIGRATION
DOVER MUNICIPAL LANDFILL SUPERFUND SITE
DOVER, NEW HAMPSHIRE